

Name \_\_\_\_\_ Period \_\_\_\_ Date \_\_\_\_\_ Score: \_\_\_\_/30 \_\_\_\_

## Online Onion Root Tip Mitosis Lab

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**PURPOSE:** In this lab you will explore the different stages of the cell cycle/mitosis by viewing onion root tip cells online.

**HYPOTHESIS:** What stage of the cell cycle do cells spend most of their time?

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### PROCEDURE:

Step 1:

Go to the website: [http://www.biology.arizona.edu/cell\\_bio/activities/cell\\_cycle/cell\\_cycle.html](http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/cell_cycle.html)

Step 2:

Read the introduction and then click on the blue next button on the bottom of the page.

Step 3:

Read and take notes on each of the phases listed on the webpage and below.

Interphase:

Prophase:

Metaphase:

Anaphase:

Telophase:

Step 4:

Circle the phase above that is not actually part of mitosis.

Step 5:

Click the blue next button on the bottom of the page and read the Assignment. The data table has been provided for you on the next page. Click the blue next button on the bottom of the page to begin the assignment. You will view each cell and determine what stage it is in by clicking the blue phase buttons. As you get the correct answer the cell will be added to that column.

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**Step 6:**

Once you have identified all cells. Count the total amount of each in each phase and record in your data table. Calculate the total percent of cells in that stage and time spent in that stage for a 24 hour period. See equations below:

Percent: # of cells in the phase/total number of cells X 100 = \_\_\_\_\_%

Time Spent: % of cells X 24 hours = # of hours in that phase (remember to change your % to a decimal before multiplying, 10% = .10)

**DATA TABLE:**

Number of cells in each phase						
	Interphase	Prophase	Metaphase	Anaphase	Telophase	Total
Number of cells						36
% of cells						100%
Time Spent (hours)						24 hours

**ANALYSIS:**

1. In what phase do cells spend most of their time & why do you think this is so?
2. In what phase do cells spend the least amount of time?
3. Explain whether your hypothesis was supported or not using the data from your data table?